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EXAMINER

PANNALA, SATHYANARAYA R

ART UNIT	PAPER NUMBER
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2177

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/037,993	Applicant(s) CHANDRASEKAR ET AL.	
	Examiner Sathyanarayan Pannala	Art Unit 2177	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Application 10/037993 filed on 1/03/2002 and the Preliminary Amendment filed on 1/03/2002 have been examined. Claims 1-27 are pending in this Office Action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 12 and 21 are objected for claiming a method and a computer readable medium in single claim groups of 1 and 13 respectively. A single claim, which recites a method and a computer-readable medium, is indefinite under 35 U.S.C. 112, second paragraph. This type of claim is indefinite because it fails to positively recite the boundaries sought for protection. The metes and bounds of the claim cannot be determined because it is unclear as to which category of subject matter is sought for protection, i.e., the method or the storage medium. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Wolfman et al (USPA Pub. 2002/0040363) hereinafter Wolfman.

6. As per independent claim 1, Wolfman teaches a method for classification includes the steps for searching a data structure including categories for elements related to an input and calculating relevance of each of the elements in the input and ranking the elements by relevance to the input (page 1, paragraph 0007). Wolfman teaches the claimed step of “providing a data structure comprising a plurality of nodes and a plurality of key phrases wherein each node relates to at least one key phrase and wherein each key phrase correspond to at least one web page” as the data structure is directed acyclic graph (DAG) 14 contains a nodes 22, associate information 26 (web site) and links 28 and nodes 22 contain keywords (Fig. 2, page 2, line 1, and paragraph 0017, 0021). Further, Wolfman teaches the claimed step of “receiving a query containing at least one search term” as the input is sent as query to various available search engines for a remote information search (Fig. 4, paragraph 0036). Further, Wolfman teaches the claimed step of “searching the data structure for key phrases

matching the search term” as a user enters an input comprising text and the given input for example, ‘conservative management of my savings’ the keywords matches to knowledge DAG 14. Personal finance matches the keywords saving and conservative funds (Fig. 4, page 1, paragraph 0030, 0033). Further, Wolfman teaches the claimed step of “providing a link to at least one web page corresponding to the matching key phrases” as the information 26 item may be stored on a web page (Fig. 2, page 2, paragraph 0021). Finally, Wolfman teaches the claimed step of “providing a link to at least one node having a relation to at least one key phrase matching the search term whereby a user can browse the link from the node to find web pages related to the node” as link 28 may be any type of link including an HTML link, a URL link or a path to a directory or file (Fig. 2, page 2, paragraph 0021).

7. As per dependent claim 2, Wolfman teaches the claimed step of “the data structure comprises a hierarchical data structure wherein the plurality of at least two nodes have a parent child relationship” as hierarchical classification systems and the information available about individual nodes is generally limited to few keywords. Node 22A is connected has two children, personal finance and appliance (Fig. 2, page 2, paragraph 0020, 0022).

8. As per dependent claim 3, Wolfman teaches the claimed step of “providing at least one link to a parent node of the at least one node whereby the user can browse on web pages related to the parent node” as searching step 103 DAG 14, classifier 12

compares individual words contained in attributes 23 of each node 22. This comparison is made 'bottom up', from the leaf nodes to the root and this indicates clearly the links are from child to parent and vice versa. Nodes have links to web pages for information (Fig. 2, page 2-3, paragraph 0031, 0021).

9. As per dependent claim 4, Wolfman teaches the claimed step of "each node may comprise a category" as each node represents a category (Fig. 2, page 1, paragraph 0015).

10. As per dependent claim 5, Wolfman teaches the claimed step of "each node may comprise a concept" as attribute 23 may contain a short textual summary of the content of the node 22 (Fig. 2, page 2, paragraph 0020).

11. As per dependent claim 6, Wolfman teaches the claimed step of "the web pages are maintained by web sites" as a number of web sites are using hierarchies of categories to aid users in searching and browsing for information (page 1, paragraph 0006).

12. As per dependent claim 7, Wolfman teaches the claimed step of "the web sites are part of an intranet" as the nature of the internet is that of an unorganized mass of information and therefore web sites have made use of hierarchies of categories to aid

users in searching and browsing information. The network could be intranet when users are within the organization (page 1, paragraph 0006).

13. As per dependent claim 8, Wolfman teaches the claimed step of "the web sites are part of the Internet" as the nature of the internet is that of an unorganized mass of information and therefore web sites have made use of hierarchies of categories to aid users in searching and browsing information (page 1, paragraph 0006).

14. As per dependent claim 9, Wolfman teaches the claimed step of "the data structure is maintained by a search engine" as in step 113, the input queries may be sent to remote information search engines using text and context and generate additional queries, from this the data structure related to DAG is maintained by some search engines. The classification system may additionally be used in conjunction with an information retrieval service engine to provide improved results (Fig. 1, 4, page 2, 5, paragraph 0028, 0066).

15. As per dependent claim 10, Wolfman teaches the claimed step of "the hierarchical data structure is a directed graph" as the classification system 10 comprises a knowledge directed acyclic graph 14 (Fig. 1, Page 1, paragraph 0014).

16. As per dependent claim 11, Wolfman teaches the claimed step of "the query is a refined query selected from a set of nodes matching an initial search term" as in

step 113, the input queries may be sent to remote information search engines and search engines may use both text and context if available and may generate additional queries (Fig. 4, page 5, paragraph 0066).

17. As per dependent claim 12, Wolfman teaches the claimed step of "A computer-readable medium bearing computer-readable instructions for carrying out As per dependent claim 1" as the method of claim 1 was fully discussed in paragraph 6 above, so the rationale used for rejection of claim 1 the same rejection holds good for rejecting this claim.

18. As per independent claim 13, Wolfman teaches a method for classification includes the steps for searching a data structure including categories for elements related to an input and calculating relevance of each of the elements in the input and ranking the elements by relevance to the input (page 1, paragraph 0007). Wolfman teaches the claimed step of "providing a search term to a search engine" as the input is sent as query to various available search engines for a remote information search (Fig. 4, paragraph 0036). Further, Wolfman teaches the claimed step of "receiving a plurality of links to nodes related to the search term wherein each node has a relation to a plurality of web pages" as identical links may appear in more than one node 22 and different nodes may contain same keywords (Fig. 2, page 2, paragraph 0017). Further, Wolfman teaches the claimed step of "receiving a plurality of links to web pages related to the search term" as different nodes 22 may contain the same keywords and nodes

may contain links to associated information, which is on a web page or the link is a HTML link, identical links may 28 may appear in more than one node (Fig. 2, page 2, paragraph 0017, 0021). Finally, Wolfman teaches the claimed step of “a user may select at least one link to a web page to display the related web page and select at least one link to nodes related to the search term to display a plurality of links to web pages related to the nodes” as nodes contain a link 28 to associated information and it is stored on web page 26. Links 28 may be any type of link including an HTML link, URL or path to a directory or file. Nodes 22 are provided with additional information consisting of a list of associated keywords (Fig. 2, page 2, paragraph 0021, 0024).

19. As per dependent claim 14, Wolfman teaches the claimed step of “said nodes comprise categories” as each node represents a category (Fig. 2, page 1, paragraph 0015).

20. As per dependent claim 15, Wolfman teaches the claimed step of “said nodes comprise concepts” as attribute 23 may contain a short textual summary of the content of the node 22 (Fig. 2, page 2, paragraph 0020).

21. As per dependent claim 16, Wolfman teaches the claimed step of “the further comprising receiving at least two links for broaden nodes, said broaden nodes having a parent-child relationship with one another wherein one of said broaden nodes has a relationship to the search term and wherein the other one of said broaden nodes

has a parent relationship to the one of said broaden nodes whereby the user may select one of said broaden nodes to display at least one web page related to the selected broaden nodes" as Home node has Personal Finance and Appliance two child nodes and parent node is broadened node than the children nodes, personal Finance and Appliance (Fig. 2, page 2, paragraph 0020).

22. As per dependent claim 17, Wolfman teaches the claimed step of "the parent-child relationship is such that the parent node comprises web pages having a broader scope than the search term" as the classifier 12 compares the individual words of input to the words contained in attributes 23 of each node. Parent nodes are broader than child nodes, for example, Home node has Personal Finance and Appliance two child nodes and comparison is made from bottom to up, from leaf nodes to the root. Leaf nodes are very specific compared to parent node (Fig. 1-2, page 2-3, paragraph 0020, 0031).

23. As per dependent claim 18, Wolfman teaches the claimed step of "the web pages are maintained by a web site" as a number of web sites are using hierarchies of categories to aid users in searching and browsing for information (page 1, paragraph 0006).

24. As per dependent claim 19, Wolfman teaches the claimed step of "the web site is part of an intranet" as the nature of the internet is that of an unorganized mass of

information and therefore web sites have made use of hierarchies of categories to aid users in searching and browsing information. The network could be intranet when users are within the organization (page 1, paragraph 0006).

25. As per dependent claim 20, Wolfman teaches the claimed step of "the web site is part of the Internet" as the nature of the internet is that of an unorganized mass of information and therefore web sites have made use of hierarchies of categories to aid users in searching and browsing information (page 1, paragraph 0006).

26. As per dependent claim 21, Wolfman teaches the claimed step of "computer-readable medium bearing computer-readable instructions for carrying out As per dependent claim 13" as the method of claim 13 was fully discussed in paragraph 6 above, so the rationale used for rejection of claim 13 the same rejection holds good for rejecting this claim.

Claim Rejections - 35 USC § 103

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

28. Claims 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfman et al (USPA Pub. 2002/0040363) hereinafter Wolfman and in view of Goerz, JR. et al (USPA Pub. 2002/0065671) hereinafter Goerz.

As per independent claim 22, Wolfman teaches a method for classification includes the steps for searching a data structure including categories for elements related to an input and calculating relevance of each of the elements in the input and ranking the elements by relevance to the input (page 1, paragraph 0007). Wolfman teaches the claimed step of "the nodes are arranged in a hierarchical order such that a node having a concept narrower than the first concept is lower in the hierarchy and a node having a concept broader than the first concepts is higher in the hierarchy" as the hierarchy of categories wherein each branch and node represents a category. Hierarchical classification system 10 analyzes input and classifies it into the predefined set of information represented by knowledge DAG 14 by matching the input to the appropriate category (Fig. 1-2, page 1-2, paragraph 0015, 0020, 0022). Wolfman does not explicitly teach using server to provide a website services. However, Goerz teaches the claimed "a

server computer having a directory of nodes wherein at least one node contains a plurality of web sites related to a first concept and a category related to the first concept” as the project development system 100 includes a server 2, and server memory 6, server CPU 4 are for storing and providing access to information including website 8. The user screen 15A-n is launched into screen 28 based on the search of knowledge base 38 and the display screen 28 displays a group of predetermined navigable super categories. Super category could be determined by creating a well thought through market place directory similar in idea to the yellow pages. Each URL 22 included in indexed knowledge base 38 is called a node. Each node is a location within the knowledge base and may be arrived at from any one of several searches (Fig. 1-2, page 2-3, paragraph 0037, 0042). Goerz teaches a method and system for implementing a project development workspace that includes a project development website and the website has a multidimensional knowledge base. A unidirectional data gate is for transferring data from the project development website to the project workspace without influencing the contents the website (page 2, paragraph 0014). Goerz also teaches the claimed “a client computer in communication with the server computer wherein when the client computer communicates a search term related to the at least one node so that the client computer receives the plurality of web pages and the category related to the at least one node” as the Internet appliance 16A-n could be any Internet appliance for interacting with an Internet Website, including but not limited to a computer, a laptop computer, a client server, a Palm Pilot.TM., an Internet terminal, an Internet kiosk, an interactive television, any device specialized in finding specific types

of information. Typically, Internet search engines are Websites that include an entry Web page with a form field to accept search terms, and are referred to as browsers. Typical browsers receive a keyword or keywords descriptive of the interest, topic, or need for which a user is seeking information or services. The browser's associated Website includes a database of URLs and URL information allowing it to search for any incident of the keyword(s), ultimately returning a list of URLs or Websites that may fulfill the user's needs (page 1-2, paragraph 0006, 0038). Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention to combine teaching of the cited references because Goerz's teachings would have allowed Wolfman's system to address a business user's need for a project search tool that provides resources addressing multiple aspects of the project after running only one search (see Goerz, page 1, paragraph 0010).

29. As per dependent claim 23, Wolfman teaches the claimed "the network is an intranet" as the nature of the internet is that of an unorganized mass of information and therefore web sites have made use of hierarchies of categories to aid users in searching and browsing information. The network could be intranet when users are within the organization (page 1, paragraph 0006).

30. As per dependent claim 24, Wolfman teaches the claimed "the network is an Internet " as the nature of the internet is that of an unorganized mass of information and

therefore web sites have made use of hierarchies of categories to aid users in searching and browsing information (page 1, paragraph 0006).

31. As per dependent claim 25, Wolfman teaches the claimed "a second node wherein the second node is broader in concept than the at least one node" as the parent node is broader in concept than the children nodes, for example, Home node has two children personal finance and appliance (Fig. 2, page 2, paragraph 0020).

32. As per dependent claim 26, Wolfman teaches the claimed "a second node wherein the second node is narrower in concept than the at least one node" as the parent node is broader in concept than the children nodes, for example, Home node has two children, personal finance and appliance (Fig. 2, page 2, paragraph 0020).

33. As per dependent claim 27, Wolfman teaches the claimed "the hierarchical order is in the form of a directed graph" as the classification system 10 comprises a knowledge directed acyclic graph 14 (Fig. 1, Page 1, paragraph 0014).

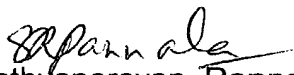
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sathyanarayan Pannala whose telephone number is (703) 305-3390. The examiner can normally be reached on 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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Sathyanarayan Pannala
Examiner
Art Unit 2177

srp
September 30, 2004